What is Claimed is:

1. A method for manufacturing a semiconductor device comprising the steps of:

forming an insulating region for insulating an active region formed in a semiconductor layer formed on a semiconductor substrate through the first insulating layer;

forming a conductive layer on said semiconductor layer after forming said insulating region; and

implanting ions in said semiconductor layer after forming said conductive layer, thereby forming said active region.

2. A method as claimed in claim 1 wherein said conductive layer is made of carbon (C).

3. A method as claimed in claim 2 wherein said conductive layer has a thickness of 5nm to 10nm.

4. A method as claimed in claim 1 wherein said conductive layer is made of silicon (Si) doped with impurity ions.

5. A method as claimed in claim 4 wherein said conductive layer has a thickness of 5nm to 10nm.

6. A method as claimed in claim 1 wherein said conductive layer is made of an arbitrary metal selected from a metal group including gold (Au), an Au-alloy, platinum (Pt), a Pt-alloy, and an alloy of Au and Pt.

7. A method as claimed in claim 6 wherein said conductive layer has a thickness of 1nm to 5nm.

8. A method as claimed in claim 1 wherein said conductive layer is made of aluminum (Al) or an Al-alloy.

9. A method as claimed in claim 8 wherein said conductive layer has a thickness of 1nm to 5nm.

10. A method as claimed in claim 1 further comprising a step of forming the second insulating layer on said semiconductor layer on which said active region is formed.

11. A method as claimed in claim 10 wherein said conductive layer is made of carbon (C).

12. A method as claimed in claim 11 wherein said conductive layer has a thickness of 5nm to 10nm.

13. A method as claimed in claim 10 wherein said conductive layer is made of silicon (Si) doped with impurity ions.

14. A method as claimed in claim 13 wherein said conductive layer has a thickness of 5nm to 10nm.

15. A method as claimed in claim 10 wherein said conductive layer is made of an arbitrary metal selected from a metal group including gold (Au), an Au-alloy, platinum (Pt), a Pt-alloy, and an alloy of Au and Pt.

16. A method as claimed in claim 15 wherein said conductive layer has a thickness of 1nm to 5nm.

17. A method as claimed in claim 10 wherein said conductive layer is

made of aluminum (Al) or an Al-alloy.

18. A method as claimed in claim 17 wherein said conductive layer has a thickness of 1nm to 5nm.

19. A method as claimed in claim 1 further comprising the steps of:

removing said conductive layer after forming said active region; and

forming the second insulating layer on said active region of said semiconductor layer after removing said conductive layer.

20. A method as claimed in claim 19 wherein said conductive layer is made of carbon (C).

21. A method as claimed in claim 20 wherein said conductive layer has a thickness of 5nm to 10nm.

22. A method as claimed in claim 19 wherein said conductive layer is made of silicon (Si) doped with impurity ions.

23. A method as claimed in claim 22 wherein said conductive layer has a thickness of 5nm to 10nm.

24. A method as claimed in claim 19 wherein said conductive layer is made of an arbitrary metal selected from a metal group including gold (Au), an Au-alloy, platinum (Pt), a Pt-alloy, and an alloy of Au and Pt.

25. A method as claimed in claim 24 wherein said conductive layer has a thickness of 1nm to 5nm.

26. A method as claimed in claim 19 wherein said conductive layer is made of aluminum (Al) or an Al-alloy.

27. A method as claimed in claim 26 wherein said conductive layer has a thickness of 1nm to 5nm.